

Voluntary Voting System Guidelines (VVSG): An Overview

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States and localities [make most decisions about the voting systems used in U.S. elections](#), from what equipment to acquire to how to pay for it. [Since 1990](#), however, the federal government has issued voluntary guidance states and localities may use to inform their choices. This Insight examines the current iteration of that guidance, the [Voluntary Voting System Guidelines \(VVSG\)](#).

Origins of the VVSG

Issues with voting systems contributed to delays in the resolution of the 2000 presidential election. Congress responded, in part, by including benchmarks for voting systems in the Help America Vote Act of 2002 ([HAVA](#); [52 U.S.C. §§20901-21145](#)).

Title III of HAVA defined and set some [mandatory standards](#) for the voting systems [states](#) use in federal elections. The act also provided for [development of more detailed voluntary federal guidelines](#)—the VVSG—and [creation of a federal program to test and certify voting systems to the guidelines](#).

Responsibility for these tasks was assigned primarily to the [U.S. Election Assistance Commission \(EAC\)](#), with roles for the general public, the [National Institute of Standards and Technology \(NIST\)](#), and three EAC advisory bodies (see [Table 1](#)). The EAC largely inherited these responsibilities from the [Federal Election Commission \(FEC\)](#), which issued voluntary federal voting system guidelines in [1990](#) and [2002](#), and the [National Association of State Election Directors](#), which oversaw a program to test and qualify systems to the FEC guidelines.

As with the FEC guidance—and in contrast to the mandatory standards in Title III—states are not required to use voting systems that meet the VVSG. Voting systems must comply with the guidelines to receive federal certification, however, and states [may choose to make some or all of the federal guidelines, testing, or certification mandatory under their own state laws](#).

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Table 1. Voluntary Voting System Guidelines (VVSG): Roles and Responsibilities

	Roles in Developing or Adopting the VVSG	Roles in Testing or Certifying Voting Systems to the VVSG
U.S. Election Assistance Commission (EAC) Commissioners	Provide for publication of final VVSG and notice of proposed VVSG in <i>Federal Register</i> Provide for public comment and hearing on proposed VVSG Vote on adoption of VVSG	Provide for testing, certification, decertification, and recertification of voting systems Vote on accreditation and revocation of accreditation of voting system test laboratories (VSTLs)
EAC Technical Guidelines Development Committee (TGDC)	Assist EAC executive director with developing VVSG Provide for publication of VVSG recommendations in <i>Federal Register</i>	—
EAC Board of Advisors and EAC Standards Board	Review proposed VVSG and submit comments and recommendations	Provide consultation on VSTL performance
National Institute of Standards and Technology (NIST)	Chair TGDC and provide technical support upon request	Recommend VSTLs for accreditation Monitor VSTL performance and make recommendations about continuing accreditation

Source: CRS, based on review of the [U.S. Code](#).

Notes: Roles are as specified in statute. For more on the EAC's implementation of the federal voting system testing and certification program, see [here](#). For more on the composition and duties of the EAC's three advisory bodies, see [here](#).

Changes for the VVSG 2.0

The EAC issued the first version of the VVSG ([VVSG 1.0](#)) in 2005 and a modification ([VVSG 1.1](#)) in 2015. Work on another update (VVSG 2.0) [officially started in 2015](#), and the new guidelines [were adopted by the EAC's commissioners on February 10, 2021](#).

The VVSG 2.0 [has a different structure than previous versions of the VVSG](#). It includes high-level principles and guidelines accompanied by more detailed technical requirements for use primarily by voting system manufacturers and testing information for use primarily by voting system test laboratories.

Its content also differs. The VVSG 1.1 was a relatively limited modification of the VVSG 1.0. The VVSG 2.0, by contrast, represents a more thoroughgoing revision. The final draft [lists a number of major changes from the VVSG 1.1 to the VVSG 2.0](#), with emphasis on updates related to usability, accessibility, security, and interoperability.

Selected Issues

[According to the FEC](#), the federal government first started issuing voting system guidelines in response to requests for assistance from the states. The guidelines were intended to help states and localities, which might have limited resources and technical expertise, make informed decisions about increasingly complex voting technology.

State and local election officials have reported some obstacles to achieving that objective, however, including the following:

- **Delays in updating the VVSG.** Due partly to the [lack of a policymaking quorum of EAC commissioners for much of the past decade](#), the VVSG was only updated once between its initial adoption in 2005 and 2021.
- **Lack of coverage of “nonvoting” election systems.** The [scope of the VVSG](#) is based on the [definition of “voting system” in Title III of HAVA](#), so election systems that do not meet that definition, such as voter registration databases, are not covered by the VVSG or the federal testing and certification program.

The change in the structure of the VVSG 2.0 [was intended to address the first of these reported issues](#); authority to adopt and modify the principles and guidelines was to be reserved to the EAC’s commissioners while other documents could be updated by agency staff. Following an [internal legal opinion questioning that approach](#), the EAC has started pursuing an alternative, [developing procedures to regularly update the VVSG requirements and respond to loss of a quorum](#).

The EAC has also partnered with the [Center for Internet Security](#) on a [pilot program for security testing of election systems that are not covered by the VVSG](#). Other proposed approaches to covering nonvoting election systems—offered in legislation in the 117th and previous Congresses—include [establishing new guidelines for such systems](#) and [expanding the HAVA definition of voting systems](#).

Whether or how to pursue such proposals is likely to continue to be a subject of debate as elections stakeholders transition to the VVSG 2.0 and start thinking about the next update to the guidelines.

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